

## CLAIMS

1. A medical decision support system comprising
  - a computer; and
  - a computer program product arranged to provide data derived from examination of digital images of a tissue specimen according to predetermined criteria for histopathological analysis.
2. A computerized medical decision support system as in claim 1 wherein said computer program product further includes an analysis module.
3. A computerized medical decision support system as in claim 2 wherein said computer program product further includes a diagnosis module.
4. A computerized medical decision support system as in claim 3 wherein said system further provides data concerning similar cases, including images and related information analysis.
5. A computerized medical decision support system as in claim 1, wherein said system further includes an image acquisition module for providing said digital images.
6. A computerized medical decision support system as in claim 5, wherein said image acquisition module includes:
  - a microscope; and
  - a digital camera coupled to said microscope for capturing, through said microscope, at least one picture representing a specimen on a slide and generating digitized images thereof.

7. The computerized medical decision support system as in claim 6, wherein said digital camera is arranged to capture, through said microscope, more than one picture representing a specimen on a slide and generating digitized images thereof.

8. A computerized medical decision support system as in claim 1, wherein said system further comprises

- communication means for transferring data from the digital camera to a remote server for image processing, and from the server back to the computer.

9. A method for assisting in obtaining a pathological diagnosis from a plurality of pictures representing a specimen on a slide, the method comprising the following steps:

- obtaining digitized data corresponding to images of a specimen on a slide placed under a microscope;
- processing said images;
- examining the images in accordance with predetermined histopathological criteria; and
- providing an examination report based on said examination.

10. The method according to claim 9 wherein the step of processing comprises:

- combining pictures taken at a single magnification;
- enabling zooming in and out from each magnification to another;
- detecting background and image intensity and correcting the images accordingly.

11. The method according to claim 9, further comprising:
  - providing an analysis based on said examination.
12. The method according to claim 9, further comprising:
  - providing a diagnosis based on said examination.
13. The method according to claim 9, wherein the step of obtaining digitized data includes obtaining digitized data corresponding to images of a specimen taken at at least one magnification.
14. The method according to claim 9, wherein the step of obtaining digitized data includes obtaining digitized data corresponding to images of a specimen taken at a plurality of different magnifications.
15. The method according to claim 14, further comprising mapping elements to permit zooming from images at one magnification to another at an analogous point in the images.